

**REMARKS**

In the final Office Action, the Examiner objects the abstract under M.P.E.P. § 608.01(b); objects to the drawings as failing to comply with 37 C.F.R. § 1.84(p)(5); rejects claims 1, 3-10, 12-17, and 22-40 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; rejects claims 1, 3, 4, 8, 16, 17, 22-26, and 36-40 under 35 U.S.C. § 103(a) as unpatentable over BARHAM et al. (U.S. Patent No. 6,721,371) in view of ENGLISH (U.S. Patent No. 5,489,879); rejects claims 5-7, 13, 27-29 and 33 under 35 U.S.C. § 103(a) as unpatentable over BARHAM et al. in view of ENGLISH, and further in view of QUIGLEY et al. (U.S. Patent No. 6,650,624); rejects claims 14, 15, 34, and 35 under 35 U.S.C. § 103(a) as unpatentable over BARHAM et al. in view of ENGLISH, and further in view of PEYROVIAN (U.S. Patent No. 5,768,682); and rejects claims 9, 10, 12, and 30-32 under 35 U.S.C. § 103(a) as unpatentable over BARHAM et al. in view of ENGLISH, further in view of QUIGLEY et al., and further in view of the applicant's admitted prior art in FIG. 17(A). Applicant respectfully traverses.

By way of this Amendment, Applicant proposes amending the drawings and Abstract as requested by the Examiner. No new matter has been introduced by way of the present amendment. Claims 1, 3-10, 12-17, and 22-40 remain pending in the present application. Reconsideration and timely allowance of all claims in view of the preceding amendments and the following remarks are respectfully requested.

**Objection to the Abstract**

The Abstract stands objected to under M.P.E.P. § 608.01(b) as including more than 150 words. To address this objection, Applicant proposes amending the Abstract in the manner set forth above to reduce the word count to under 150 words. In view of the foregoing proposed amendments, reconsideration and withdrawal of the objection to the Abstract are respectfully requested.

**Drawing Objections**

Figures 9 and 12 of the drawings are objected to as failing to comply with 37 CFR 1.84(p)(5). More specifically, the Examiner indicates that the drawings include various reference characters that are not mentioned in the written description. To address this objection, Applicant proposes amending Figures 9 and 12 to change reference number 915-3 to 915-1, and to change AQM-16 to QAM-16. In view of the foregoing proposed amendments, reconsideration and withdrawal of the objection to the drawings are respectfully requested.

**Rejections Under 35 U.S.C. § 112**

Claims 1, 3-10, 12-17 and 22-40 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. More specifically, the Examiner indicates that all pending claims include subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant respectfully traverses this rejection.

As an initial matter, it should be noted that, as in the prior Office Action dated December 14, 2007, the Examiner has continued to not provide any description relating

to the elements allegedly not supported by Applicant's written description. In the event that the rejection under 35 U.S.C. §112, first paragraph is to be maintained in any subsequent action, Applicant respectfully requests clarification with respect to the basis for the rejection. Moreover, in view of the failure by the Examiner to provide such a bases for the rejection, Applicant respectfully submits that the finality of the Office Action be withdrawn.

Regardless, Applicant respectfully submits that claims 1, 3-10, 12-17 and 22-40 are fully supported and enabled by way of the present specification. In the interest of clarifying this support, Applicant provides below a recitation of examples of where support may be found in the specification for each of the independent claims 1 and 24. Should the Examiner feel that similar recitations of support are necessary for any and/or all dependent claims, such a recitation will be provided in a subsequent response.

Independent claim 1 recites a method for provisioning multiple digital receivers, including providing an analog to digital converter (**e.g., ADC 930 of Fig. 9**) having an analog input (**e.g., input line to ADC 930 in Fig. 9**) and a digital output (**e.g., output line from ADC 930 to data receiver bank 810 of Fig. 9 and “digitized upstream spectrum” in Fig. 10**); providing a plurality of digital receivers (**e.g., digital receivers 910 in Fig. 9 and 10**), each receiver having a programmable center frequency (**e.g., pg. 14, lines 8-13**), where the plurality of digital receivers are configured to receive digitized samples from the analog to digital converter (**e.g., “digitized upstream spectrum” in Fig. 10**) and where each of the plurality of digital receivers includes a low-pass digital filter (**e.g., digital filter 1010 of Fig. 10**); maintaining pre-computed sets of filter coefficients in non-volatile storage, each set corresponding to one of the plurality of low-

pass digital filters, each filter having one of a predetermined set of bandwidths (**e.g., D.C. Coefficient storage 940 in Fig. 9; pg. 11, lines 10-12; pg. 13, lines 3-8**); receiving a request to provision a selected one of the plurality of digital receivers (**block 1305 in Fig. 13**); selecting a first center frequency and first bandpass bandwidth for provisioning the selected one of the plurality of digital receivers (**e.g., block 1310 in Fig. 13**); retrieving the filter coefficients associated with the first bandpass bandwidth (**e.g., block 1315 of Fig. 13; pg. 13, lines 19-22**); subjecting the retrieved filter coefficients to a bandpass transformation corresponding to the first center frequency (**e.g., block 1320 of Fig. 13, pg. 14, lines 2-4**); and loading the transformed filter coefficients into coefficient latches in the selected one of the plurality of digital receivers (**e.g., block 1325 of Fig. 13; pg. 14, lines 4-6**).

Independent claim 24 recites a system for provisioning multiple digital receivers, including an analog to digital converter (**e.g., ADC 930 of Fig. 9**) having an analog input (**e.g., input line to ADC 930 in Fig. 9**) and a digital output (**e.g., output line from ADC 930 to data receiver bank 810 of Fig. 9 and “digitized upstream spectrum” in Fig. 10**); a plurality of digital receivers (**e.g., digital receivers 910 in Fig. 9 and 10**), each of the plurality of digital receivers having a programmable center frequency (**e.g., pg. 14, lines 8-13**), and each of the plurality of digital receivers including a low-pass digital filter (**e.g., digital filter 1010 of Fig. 10**); means for coupling digitized samples to the plurality of digital receivers (**e.g., “digitized upstream spectrum” in Fig. 10**); means for maintaining pre-computed sets of filter coefficients in non-volatile storage, each set corresponding to one of plurality of low-pass digital filters, each filter having one of a predetermined set of bandwidths (**e.g., D.C. Coefficient storage 940 in Fig. 9; pg. 11,**

**lines 10-12; pg. 13, lines 3-8);** means for receiving a request to provision a selected one of the plurality of digital receivers (**block 1305 in Fig. 13**); means for selecting a first center frequency and first bandpass bandwidth for provisioning the selected one of the plurality of digital receivers (**e.g., block 1310 in Fig. 13**); means for retrieving the filter coefficients associated with the first bandpass bandwidth (**e.g., block 1315 of Fig. 13; pg. 13, lines 19-22**); means for subjecting the retrieved filter coefficients to a bandpass transformation corresponding to the first center frequency (**e.g., block 1320 of Fig. 13, pg. 14, lines 2-4**); and means for loading the transformed filter coefficients into coefficient latches in the selected one of the plurality of digital receivers (**e.g., block 1325 of Fig. 13; pg. 14, lines 4-6**).

In view of the above remarks, Applicant respectfully submits that all pending claims 1, 3-10, 12-17, and 22-40 are fully described and enabled by the present specification, as required by 35 U.S.C. §112, first paragraph. That is, based on the portions of the written description noted above, as well as the rest of the disclosure, one of ordinary skill in the art would be able to make and use the claimed invention. Reconsideration and withdrawal of the pending rejection under 35 U.S.C. §112, first paragraph are respectfully requested.

**Rejections Under 35 U.S.C. § 103(a) based on BARHAM et al. and ENGLISH**

Claims 1, 3-4, 8, 16-17, 22-26 and 36-40 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BARHAM et al. in view of ENGLISH. Applicant respectfully traverses this rejection.

A proper rejection under 35 U.S.C. § 103 requires that three basic criteria be met. First, there must be some suggestion or motivation, either in the references themselves, or

in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest each and every claim limitation. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not the applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The combination of BARHAM et al. and ENGLISH does not disclose or reasonably suggest the combination of features recited in Applicant's claims 1, 3, 4, 8, 16, 17, 22-26 and 36-40.

Claim 1, for example, recites a method for provisioning multiple digital receivers, including providing an analog to digital converter having an analog input and a digital output; providing a plurality of digital receivers, each receiver having a programmable center frequency, where the plurality of digital receivers are configured to receive digitized samples from the analog to digital converter and where each of the plurality of digital receivers includes a low-pass digital filter; maintaining pre-computed sets of filter coefficients in non-volatile storage, each set corresponding to one of the plurality of low-pass digital filters, each filter having one of a predetermined set of bandwidths; receiving a request to provision a selected one of the plurality of digital receivers; selecting a first center frequency and first bandpass bandwidth for provisioning the selected one of the plurality of digital receivers; retrieving the filter coefficients associated with the first bandpass bandwidth; subjecting the retrieved filter coefficients to a bandpass transformation corresponding to the first center frequency; and loading the transformed filter coefficients into coefficient latches in the selected one of the plurality

of digital receivers. BARHAM et al. and ENGLISH, whether taken alone or in any reasonable combination, do not disclose or suggest the combination of features recited in claim 1.

For example, BARHAM et al. and ENGLISH, whether taken alone or in any reasonable combination, do not disclose or reasonably suggest maintaining pre-computed sets of filter coefficients in non-volatile storage, each set corresponding to one of the plurality of low-pass digital filters, and each filter having one of a predetermined set of bandwidths, as recited in claim 1. In making the rejection, the Examiner appears to rely on col. 4, lines 11 to col. 6, line 63 of BARHAM et al. for allegedly disclosing maintaining sets of filter coefficients, where each set corresponds to one of the plurality of low-pass digital filters, with each filter having one of a predetermined set of bandwidths (Final Office Action – pp. 5-6). Additionally, the Examiner acknowledges that BARHAM et al. does not disclose maintaining pre-computed sets of filter coefficients in non-volatile storage and relies on the coefficient register 44 of Fig. 2, and col. 3, lines 47-50 of ENGLISH as allegedly disclosing this feature (Final Office Action – pg. 6). Applicant respectfully disagrees with the Examiner's interpretation of BARHAM et al. and ENGLISH.

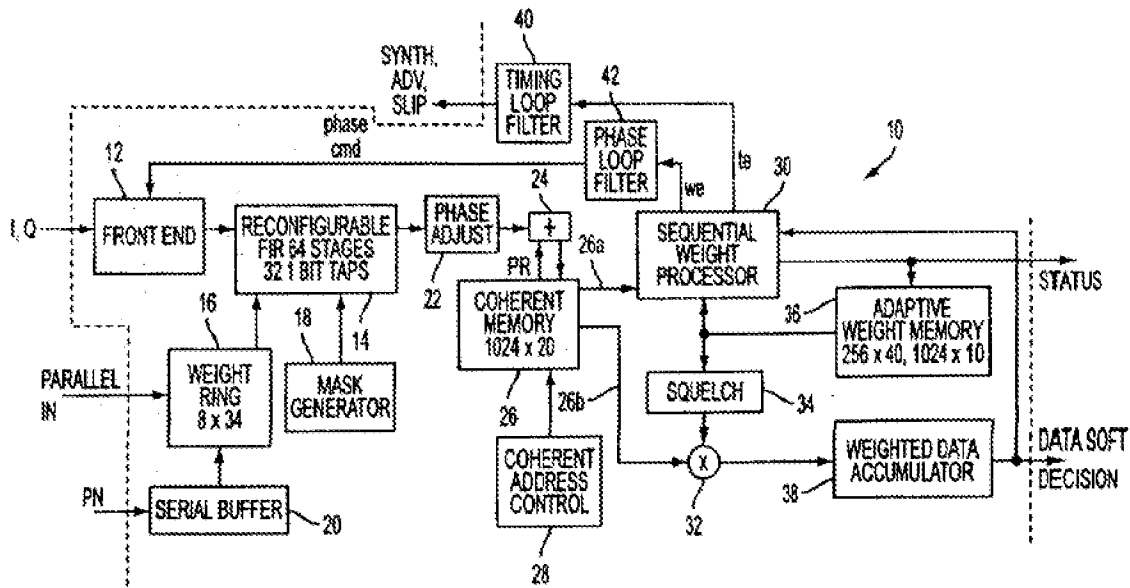


FIG. 1B

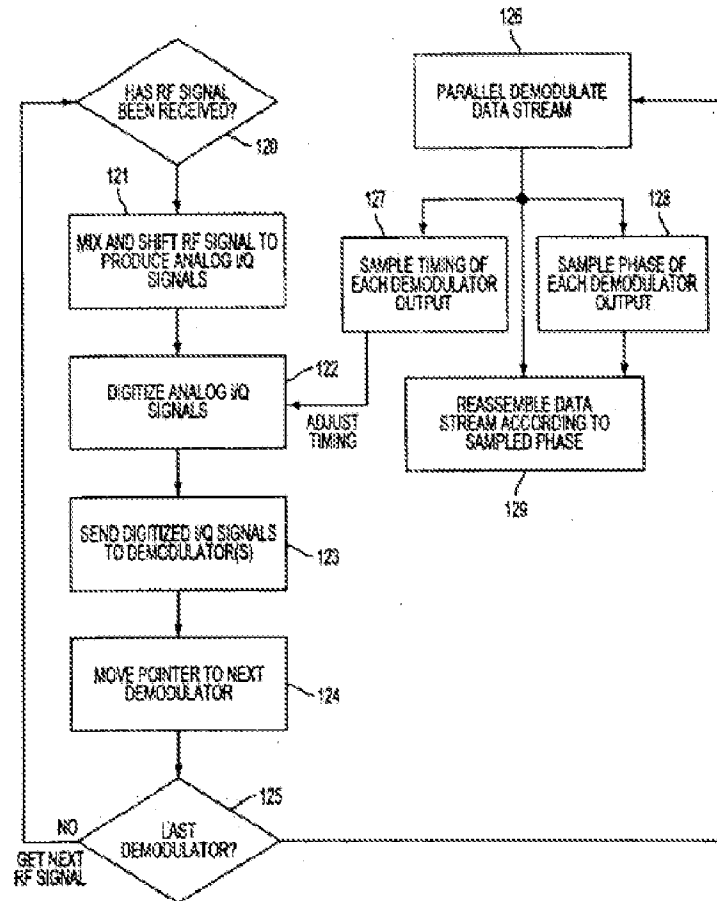


FIG. 19



Col. 4, line 11 to col. 6, line 63 of BARHAM et al. generally relate to Figures 1B and 19 (reproduced above) and discloses a high speed demodulator system that includes a number of IC demodulators (RADIS 10) used for acquiring and demodulating radio data communications. Each RADIS 10 is programmable with weight values and may be used to demodulate spread spectrum systems, such as code division multiple access (CDMA) and time division multiple access (TDMA) systems. Received analog signals (I, Q) are digitized by an ADC (step 122 in Fig. 19) and sent to a demodulator (step 123 in Fig. 19). Each RADIS 10 includes a reconfigurable finite impulse response (FIR) filter 14 that is configurable by receiving FIR weights from an external controller (see, e.g., col. 5, lines 31-34 of BARHAM et al.). The FIR filter 14 includes 64 stages implemented with 32 1-bit taps. A set of registers forming a weight stack or ring 16 is connected to the parallel input port for being programmed from the external controller. The output of the weight ring 16 is a set of tap weights which are input to the reconfigurable FIR filter 14. The output of FIR filter 14 is applied to a phase adjustment block 22 and a first input of an adder 24.

This section of BARHAM et al. does not disclose or suggest maintaining (pre-computed) sets of filter coefficients (in non-volatile storage), where each set corresponds to one of the plurality of low-pass digital filters, with each filter having one of a predetermined set of bandwidths, as recited in claim 1. More specifically, the Examiner alleges that the reconfigurable FIR filter 14 of BARHAM et al. somehow corresponds to these features. Applicant respectfully disagrees. Even assuming *arguendo* that ENGLISH may be properly relied on for disclosing maintaining pre-computed sets of filter coefficients in non-volatile storage (a point that Applicant does not concede),

BARHAM et al. still does not disclose or suggest that FIR filter 14 (or RADIS 10) maintains sets of filter coefficients, where each set corresponds to one of the plurality of low-pass digital filters, with each filter having one of a predetermined set of bandwidths, as required by claim 1. In fact, the Final Office Action is completely silent with respect to “sets of filter coefficients” and each filter having one of a predetermined set of bandwidths. The mere fact that FIR filter 14 of BARHAM et al. is disclosed as being configurable, does not disclose or suggest these features.

At col. 3, lines 47-50, ENGLISH discloses:

More particularly, FIR filter 40 includes a coefficient register 44 holding a set of FIR coefficients calculated to establish a desired shape and center frequency in the subcarrier signal 32.

This section of ENGLISH discloses that a FIR filter 40 may include a coefficient register for maintaining a set of FIR coefficients calculated to establish a desired shape and center frequency in a resulting signal. This section of ENGLISH, contrary to the Examiner's allegation, does not disclose or suggest maintaining pre-computed sets of filter coefficients in non-volatile storage, each set corresponding to one of the plurality of low-pass digital filters, each filter having one of a predetermined set of bandwidths, as recited in claim 1. Rather, ENGLISH clearly discloses a single set of FIR coefficients designed to result in a desired shape and center frequency. Nothing whatsoever in ENGLISH discloses or suggests multiple pre-computed sets of filter coefficients, where each set of coefficients corresponds to one of the plurality of low-pass digital filters and further, where each filter has one of a predetermined set of bandwidths, as recited in claim 1.

To the contrary, the very concept behind ENGLISH teaches against this feature. The underlying concept of ENGLISH relates to isolating subcarriers from within a

broadcast signal, such as paging data (ENGLISH, col. 1, lines 11-26). Further, ENGLISH discloses maintaining in a coefficient register, a pre-configured initial set of coefficients for an ideal center frequency. Test data passed through the filter is then used to calibrate new filter coefficients (ENGLISH, col. 4, lines 38-56). These new coefficients are not pre-computed and are, in fact, dynamically obtained using the test data. Consequently, there is absolutely no need or reason in ENGLISH for maintaining multiple pre-computed sets of filter coefficients in non-volatile storage, each set corresponding to one of the plurality of low-pass digital filters, each filter having one of a predetermined set of bandwidths, as required by claim 1.

For at least these reasons, claim 1 is patentable over BARHAM et al. and ENGLISH. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are respectfully requested.

In addition, BARHAM et al. and ENGLISH do not disclose or suggest subjecting the retrieved filter coefficients to a bandpass transformation corresponding to the first center frequency, as recited in claim 1. In rejecting claim 1, the Examiner acknowledges that BARHAM et al. does not disclose this feature and relies on the phrase “modifies FIR coefficients” in col. 4, lines 27-37 of ENGLISH for allegedly disclosing this feature (Final Office Action – pg. 6). Applicant respectfully disagrees.

Under the present invention, however, calibration device 34 accounts for frequency-dependent distortions occurring in a given subcarrier generator 30 during calibration thereof. In particular, calibration device 34 modifies the FIR coefficients register 44 to predistort preliminary subcarrier signal 42. Subsequent distortion introduced in the devices 50, 52, 54, and 56 actually improves the shape and center frequency of the subcarrier signal 32 produced, i.e., improves relative to the signal represented by the predistorted preliminary subcarrier signal 42.

This section of ENGLISH discloses that calibration device 34 modifies the FIR coefficients based on distortions resulting from test signals. As described above, the test signals are used to modify or calibrate the initial set of coefficients. This section does not disclose or even remotely suggest subjecting the retrieved filter coefficients to a bandpass transformation corresponding to the first center frequency, as recited in claim 1. At best, this section of ENGLISH discloses modifying FIR coefficients. However, there is absolutely no basis for interpreting this disclosure to correspond to subjecting the retrieved filter coefficients to a bandpass transformation corresponding to the first center frequency, as required by claim 1.

For at least this additional reason, claim 1 is patentable over BARHAM et al. in view of ENGLISH. Reconsideration and allowance of claim 1 are respectfully requested.

Claims 3, 4, 8, 16, 17, 22, and 23 depend from claim 1 and are therefore patentable over BARHAM et al. and ENGLISH for at least the reasons set forth above with respect to claim 1. Moreover, these claims are patentable over BARHAM et al. and ENGLISH for reasons of their own.

For example, BARHAM et al. and ENGLISH do not disclose or suggest that the analog to digital converter, the plurality of digital receivers, and the non-volatile storage (for maintaining the pre-computed sets of filter coefficients) are implemented on a single integrated circuit, as recited in claim 8. In rejecting claim 8, the Examiner relies on col. 3, lines 53-55, col. 4, lines 45-50, and col. 5, lines 49-57 of BARHAM et al. for allegedly disclosing this feature (Final Office Action – pg. 8). Applicant respectfully disagrees.

As an initial matter, Applicant is confused as to the basis for the Examiner's rejection. In rejecting claim 1 (from which claim 8 depends), the Examiner admits that

BARHAM et al. does not disclose or suggest “store filter coefficients in storage” (Final Office Action, pg. 6, line 4). Accordingly, it seems illogical that any portion of BARHAM et al. can then support a rejection of claim 8, which recites that the first converter, the receivers, and the non-volatile storage (*for maintaining the pre-computed sets of filter coefficients*) are implemented on a single integrated circuit. It would seem that, if BARHAM et al. does not disclose non-volatile storage for maintaining the pre-computed sets of filter coefficients, then BARHAM et al. cannot reasonably be construed to disclose that the analog to digital converter, the plurality of digital receivers, and the non-volatile storage (*for maintaining the pre-computed sets of filter coefficients*) are implemented on a single integrated circuit. The Examiner appears to suggest that the bank or array of IC demodulators 10 correspond to this feature (Final Office Action – pg. 8). Clarification is requested if this ground of rejection is to be maintained.

Col. 3, lines 53-55 of BARHAM et al. discloses a bank or array of IC demodulators 10, where one of the demodulators is designated as the master or first demodulator 10A. Col. 4, lines 45-50 of BARHAM et al. discloses that the coherent processor and the weight processor components are linked with the coherent memory to provide wide configurability through a programmable input port. Col. 5, lines 49-57 of BARHAM et al. discloses that each RADIS 10 includes a front end 12 that performs DC removal, phase shifting, accumulation, and down-sampling of the input IQ signals. The output of the front end 12 is applied to the FIR filter 14. This section also discloses that a set of registers form a weight stack ring coupled to an external processor.

Contrary to the Examiner's allegations, these sections of BARHAM et al. do not disclose or even remotely suggest that the analog to digital converter, the plurality of

digital receivers, and the non-volatile storage for maintaining the pre-computed sets of filter coefficients are implemented on a single integrated circuit, as recited in amended claim 8. In fact, no disclosure of a non-volatile storage for maintaining the pre-computed sets of filter coefficients is provided in BARHAM et al. The disclosure of ENGLISH does not remedy this deficiency.

For at least these additional reasons, claim 8 is patentable over BARHAM et al. and ENGLISH. Reconsideration and withdrawal of the rejection of claim 8 are respectfully requested.

Independent claim 24 recites features similar to (yet potentially different in scope from) claim 1. Accordingly, claim 24 is patentable over BARHAM et al. and ENGLISH for at least reasons similar to those set forth above with respect to claim 1. Reconsideration and allowance of claim 24 are therefore respectfully requested.

Claims 25, 26, and 36-40 depend from claim 24 and are, therefore, patentable over BARHAM et al. and ENGLISH for at least the reasons set forth above with respect to claim 24. Reconsideration and allowance of claims 25, 26, and 36-40 are therefore respectfully requested.

**Rejections Under 35 U.S.C. § 103(a) in view of BARHAM et al., ENGLISH, and QUIGLEY et al.**

Claims 5-7, 13, 27-29, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over BARHAM et al. in view of ENGLISH, and further in view of QUIGLEY et al.. Applicant respectfully traverses this rejection.

Claims 5-7 and 13 depend from claim 1. Without acquiescing in the rejection of claims 5-7 and 13, Applicant respectfully submits that the disclosure of QUIGLEY et al.

does not remedy the deficiencies in the disclosure of BARHAM et al. and ENGLISH set forth above with respect to claim 1. Therefore, Applicant submits that claims 5-7 and 13 are patentable over BARHAM et al., ENGLISH, and QUIGLEY et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1.

Claims 27-29 and 33 depend from claim 24. Without acquiescing in the rejection of claims 27-29 and 33, Applicant respectfully submits that the disclosure of QUIGLEY et al. does not remedy the deficiencies in the disclosure of BARHAM et al. and ENGLISH set forth above with respect to claim 24. Therefore, Applicant submits that claims 27-29 and 33 are patentable over BARHAM et al., ENGLISH, and QUIGLEY et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 24.

**Rejections Under 35 U.S.C. § 103(a) in view of BARHAM et al., ENGLISH, QUIGLEY et al., and PEYROVIAN**

Claims 14, 15, 34, and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over BARHAM et al. in view of ENGLISH, and further in view of PEYROVIAN. Applicant respectfully traverses this rejection.

As an initial matter, Applicant again notes that claims 14 and 15 depend from claim 5 and claims 34 and 35 depend from claim 27, both of which currently stand rejected under BARHAM et al., ENGLISH, and QUIGLEY et al. Accordingly, Applicants presume that the rejection of claims 14, 15, 34, and 35 was intended to be based on the combination of BARHAM et al., ENGLISH, QUIGLEY et al., and PEYROVIAN. Applicant again respectfully requests clarification of the grounds of

rejection of claims 14, 15, 34, and 35, in the event that this rejection is to be maintained.

In view of this deficiency, Applicant further requests that the finality of the present Office Action be withdrawn.

Claims 14 and 15 depend from claim 5. Without acquiescing in the rejection of claims 14 and 15, Applicant respectfully submits that the disclosure of PEYROVIAN does not remedy the deficiencies in the disclosure of BARHAM et al., ENGLISH, and QUIGLEY et al. set forth above with respect to claim 5. Therefore, Applicant submits that claims 14 and 15 are patentable over BARHAM et al., ENGLISH, QUIGLEY et al. and PEYROVIAN, whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 5.

Claims 34 and 35 depend from claim 27. Without acquiescing in the rejection of claims 5-7 and 13, Applicant respectfully submits that the disclosure of PEYROVIAN does not remedy the deficiencies in the disclosure of BARHAM et al., ENGLISH, and QUIGLEY et al. set forth above with respect to claim 27. Therefore, Applicant submits that claims 34 and 35 are patentable over BARHAM et al., ENGLISH, QUIGLEY et al., and PEYROVIAN, whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 27.

**Rejections Under 35 U.S.C. § 103(a) in view of BARHAM et al., ENGLISH, QUIGLEY et al., and Applicant's Allegedly Admitted Prior Art**

Claims 9, 10, 12, and 30-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over BARHAM et al. in view of ENGLISH, further in view of QUIGLEY et al., and further in view of the applicant's admitted prior art in FIG. 17(A). Applicant respectfully traverses this rejection.



Claims 9, 10, and 12 depend from claim 5. Without acquiescing in the rejection of claims 9, 10, and 12, Applicant respectfully submits that Applicant's Fig. 17(A) does not remedy the deficiencies in the disclosure of BARHAM et al., ENGLISH, and QUIGLEY et al. set forth above with respect to claim 5. Therefore, Applicant submits that claims 9, 10, and 12 are patentable over BARHAM et al., ENGLISH, QUIGLEY et al. and Applicant's Fig. 17(A), whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 5.

Claims 30-32 depend from claim 27. Without acquiescing in the rejection of claims 30-32, Applicant respectfully submits that Applicant's Fig. 17(A) does not remedy the deficiencies in the disclosure of BARHAM et al., ENGLISH, and QUIGLEY et al. set forth above with respect to claim 27. Therefore, Applicant submits that claims 30-32 are patentable over BARHAM et al., ENGLISH, QUIGLEY et al., and Applicant's Fig. 17(A) whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 27.

### **Conclusion**

In view of the foregoing proposed amendments and remarks, Applicant respectfully requests the withdrawal of the outstanding objections and rejections and the timely allowance of this application. In the event that the application is not believed to be in condition for allowance, Applicant respectfully requests entry of the Amendment since the Amendment merely amends the drawings and Abstract to correct minor informalities noted by the Examiner and would not require a further search. Further, the Examiner is invited to contact Applicant's representative at the number shown below to expedite prosecution of this application.

As Applicant's remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicant's silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, reasons to modify a reference and/or reasons to combine references, etc.) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such assertions/requirements in the future.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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